

March 15, 2004

Barry S. Drucker
Minerals Management Service
381 Elden Street, MS 4030
Herndon, VA 20170-4817

Dear Mr. Drucker:

This letter is the thirteenth Bi-Monthly Status Letter for Cooperative Agreement Number 1435-01-02-CA-85050, *Field Testing of a Physical/Biological Monitoring Methodology for Offshore Dredging and Mining Operations*.

Task 1: Biology: Bob Diaz and Christina Tallent report that the invertebrates and fish tissue collected for stable isotope analysis have been processed and sent to the UC-Davis Stable Isotope Facility for analysis. Benthic macrofauna have been sorted, identified, and biomass measured. Gut analysis of fish collected by trawl continues. Processing of sediment samples for grain size analysis has been completed. In the upcoming month, they will concentrate on data analysis and preparing for their Spring field work.

Task 2: Shoreline and Beach Studies: Scott Hardaway and Donna Milligan report that low level, vertical and oblique aerial photography was flown on January 21, 2004 (see photos attached). At that time, the beach fill at Dam Neck was just beginning. We performed an alongshore survey of Sandbridge on March 8, 2004 but were not able to access Dam Neck because of the ongoing fill project. Data analysis for that portion of the project is continuing. We are continuing work on the literature search and the profile data taken in the 1980s and 1990s. Orthorectification of historic and recent aerial photos between Cape Henry and False Cape is complete and sections of the shorelines have been digitized and analyzed for rates of change. Work has also begun on a draft of the final report.

Task 3: Bottom Imagery and Bathymetry: Jesse McNinch and Grace Browder report that there appears to be a correlation between large, shallow relict channels, outcropping gravel reflectors and outer surf zone shore-oblique bars. They are currently focusing on classifying the channels in order to better quantify the data and apply correspondence statistics.

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Task 4: Wave Studies: Jerome Maa submitted the following report.

During the past two months, we were prepared the Radar for field observations. We studied the possibility of installing the radar on a hotel roof at Virginia Beach. Finally, on February 16th, we installed the radar on the roof of Room 1201, Clarion Resort and Conference Center, 501 Atlantic Ave., Virginia Beach (see attached photo). For the first week, we manually operated the radar every two hours, whenever possible, to acquire images. On Feb. 22, we implemented an automatic control system to operate the radar. We stayed at the hotel for another five days to make sure everything was working properly. The radar is still in operation on the roof of Clarion Resort. We plan to improve the control system to make it more energy efficiency for the future application.

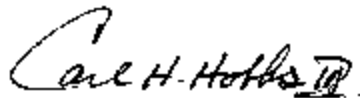
Assuming operating every hour, our objective is to spend 500W for 10 minutes, and then change to a stand-by mode and only consume 2 W for the other 50 minutes. This will bring the total power consumption down to less than 100W for battery operation.

In the coming months, our efforts will be concentrated on image analysis and continuous data acquisition. The first step objective in image process is to obtain wave measurement at only one location. The final objective is to get information on wave spatial distribution along a distance of about 4 km.

Task 5: Project Management: The project continues to run on course.

As always, please do not hesitate to contact any of us should you have any questions.

Sincerely,



Carl H. Hobbs, III
Associate Professor and Project Manager

enc.

Copy: MMS: J. Kendall, W. Adcox, J. Rowland, R. Amato
VIMS: R. Diaz, C. Tallent, J. McNinch, G. Browder, S. Hardaway, D. Milligan, J. Maa, C. Harris, M. Fonner



Aerial photographic view to the north from the southern end of Sandbridge Beach, Virginia. January 21, 2004.



Aerial photographic view to the south showing the ongoing beach nourishment project at Dam Neck, Virginia. January 21, 2004.



Radar installation on Clarion Resort Hotel Resort and Conference Center, Virginia Beach, Virginia. The antenna is the short horizontal structure between the light standards. The cable leads to the room on the 12th floor where the control and processing system were sited. Later, the computer systems were moved to the service area on the hotel roof, visible behind the antenna.